

LISTING OF THE CLAIMS

- 1-4. (canceled)
5. (previously presented) A process for delivering a polynucleotide to the cytoplasm of a cell in vitro consisting of:
- a) forming a styrene-maleic anhydride random copolymer;
  - b) reacting hydrophobic amines or hydrophobic alcohols with anhydride monomers in the copolymer thereby forming a membrane active polyanion capable of lysing mammalian cell membranes at pH 6.5; and
  - c) contacting said cell with said polynucleotide and said membrane active polyanion such that the polynucleotide and the membrane active polyanion are endocytosed by the cell.
6. (canceled)
7. (previously presented) The process of claim 5 wherein the hydrophobic amines consist of alkyl amines.
8. (previously presented) The process of claim 7 wherein a functional group is covalently linked to an anhydride monomer in the polymer.
- 9-11. (canceled)
12. (previously presented) A process for delivering a polynucleotide to the cytoplasm of a cell in vitro consisting of:
- a) forming a butyl vinyl ether-maleic anhydride alternating copolymer;
  - b) reacting hydrophobic amines or hydrophobic alcohols with anhydride monomers in the copolymer thereby forming a membrane active polyanion capable of lysing mammalian cell membranes at pH 6.5; and
  - c) contacting said cell with said polynucleotide and said membrane active polyanion such that the polynucleotide and the membrane active polyanion are endocytosed by the cell.
- 13.-15. (canceled)
16. (previously presented) The process of claim 12 wherein the hydrophobic amines consist of alkyl amines.
17. (previously presented) The process of claim 12 wherein a functional group is covalently linked to an anhydride monomer in the polymer.
- 18-20. (canceled)

21. (previously presented) The process of claim 8 wherein the functional group is selected from the group consisting of: targeting groups, steric stabilizers, membrane active compounds, and reactive groups.
22. (previously presented) The process of claim 17 wherein the functional group is selected from the group consisting of: targeting groups, steric stabilizers, membrane active compounds, and reactive groups.